

ABSTRACT

It aims at achieving effective diversity reception in even a small sized wireless signal-receiving apparatus, improvement in sensitivity of antenna, and implementation of the small size, the lower power consumption, and the low price of the antenna. The antenna 100 has antenna elements 10 and 11 that are positioned at smaller distance apart than a half wavelength of a frequency of signal to be received, a transmission line L1 and a transmission line L2 having a delay circuit 14 with a predetermined electric length, and a changeover switch 13. A difference of an electric length of a path that passes from the antenna element 10 through the transmission line L1 or L2 toward a synthesizer 15 from an electric length of a path that passes from the antenna element 11 through the transmission line L2 or L1 toward the synthesizer 15 is set so as to become $(\lambda/2 - \alpha)$ or $(-\lambda/2 + \alpha)$. When receiving a signal, the changeover switch 13 changes based on a control signal, so that directivity of the antenna 100 can vary.